

## Attention Impairments Identified in COVID-19 Survivors

Researchers are invited to use BrainTrain's IVA-AE2 Test of Attention in their studies of COVID-19 "Brain Fog" free of charge.

RICHMOND, VA, US, October 14, 2020 /EINPresswire.com/ -- The first published <u>study</u> that examined potential residual cognitive problems for patients who recovered from COVID-19 discovered that they had significant impairments in sustained attention in comparison to a matched control group. Twenty-nine patients who had been hospitalized were evaluated 3-4 weeks after testing negative for COVID-19 using a proprietary Continuous Performance Test (CPT) developed by the researchers. In the first part of the CPT the correct responses of the COVID-19 patients were only 3.7% lower than the control group scores (p = n.s.). The COVID-19 group scored significantly lower than the control group in the third part of the test by 22.7% (p < .002). Researchers also found that slower reaction times of COVID-19 patients were significantly correlated with their COVID-19 inflammation levels (r = .557, p < .002). In addition to evaluating attention, this study also evaluated memory, processing speed, executive functioning and perceptual abilities. However, only attention functioning was found to differentiate the COVID-19 patients from controls. This study's findings suggest that a key symptom of COVID brain fog may be impairments in attention and in particular individuals' ability to sustain their attention.

COVID-19 brain fog was suggested by Dr. Victoria Pelak, a professor at the Colorado School of Medicine, to most likely be caused by the side-effects of brain cell inflammation. COVID-19 is recognized as more likely than other viruses to attack the protective coating of brain cells; resulting in the demyelination of nerve cells. Thus, research has identified the potential means whereby COVID-19 leads to impairments in concentration and thinking that is described as brain fog. In addition, Dr. Postolache, a psychiatrist, at the University of Maryland School of Medicine, estimates that "between 30% and 50% of people with [a coronavirus] infection have clinical manifestations involving some form of mental health issues, such as depression and anxiety. Consequently, the evaluation of the attentional functioning of all COVID-19 survivors in conjunction with mental health screening may prove to be a useful protocol for assessing the continued impact of this virus on individuals' general cognitive and emotional functioning post-recovery.

Due to the fallout from the world-wide pandemic, unforeseen challenges continue to arise, including the difficulties faced by recovering patients who need to integrate back into the workforce. COVID-19 has been found to significantly impact attention, and this is likely to take its

toll on an individual's capability to return to premorbid functioning. In support of the quest to better understand COVID-19 and its repercussions, <u>BrainTrain</u> is now making the <u>IVA-AE2</u> Test of Attention available free of charge to researchers who want to investigate and analyze its cognitive impacts. This offer expires on December 31, 2020 and will be customized for each research study, as needed.

The IVA-AE2 measures both visual and auditory attention of adults. It takes about 10 minutes to administer and measures both attention and response control. The IVA-AE2 can be administered in-office using a Windows PC or remotely via a web browser or iPad. This test can be administered to individuals ages 18 and older. Test administration and scoring are fully automated; making it easy to learn to use. Detailed reports and analyses are also provided to help guide researchers in test interpretation.

For more information on BrainTrain's IVA-AE2 please visit <u>https://www.braintrain.com/ivaae2/</u>. You can also email us at contact@braintrain.com or speak with our friendly staff by calling 800-822-0538. Researchers can visit

https://www.sciencedirect.com/science/article/pii/S0022395620308542 for direct access to the research study cited above.

About BrainTrain: BrainTrain, Inc. has been in the business of creating neuropsychological testing and training software since 1989, when neuropsychologist, Dr. Joseph A. Sandford, author and developer of numerous BrainTrain programs, first released the Captain's Log: Cognitive Training Program. This original software helped form the foundation for many products to come, assisting people in developing their mental acuity and helping professionals improve the quality of their client's lives.

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